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=> d his

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L2           2 S L1 FUL

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L7               STRUCTURE UPLOADED
                 S L7

     FILE 'REGISTRY' ENTERED AT 11:48:52 ON 21 FEB 2002
L8           139 S L7 FUL

     FILE 'CAPLUS' ENTERED AT 11:48:54 ON 21 FEB 2002
L9           252 S L8 FUL
L10              STRUCTURE UPLOADED
L11              STRUCTURE UPLOADED
                 S L11

     FILE 'REGISTRY' ENTERED AT 11:53:34 ON 21 FEB 2002
L12           20 S L11 FUL

     FILE 'CAPLUS' ENTERED AT 11:53:36 ON 21 FEB 2002
L13           21 S L12 FUL

     FILE 'REGISTRY' ENTERED AT 11:53:43 ON 21 FEB 2002
L14           20 S L11 FUL
L15           15 S L14 AND CAPLUS/LC
L16            0 S L15 NOT L14
L17            5 S L14 NOT L15

     FILE 'CAPLUS' ENTERED AT 11:54:35 ON 21 FEB 2002

=> s l15
L18           21 L15

=> d 1-21 ibib abs hitstr
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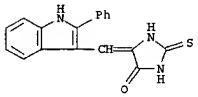
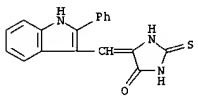
L18 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:530195 CAPLUS
DOCUMENT NUMBER: 133:217389
TITLE: Anti-cancer activity studies of indolalthiohydantoin
(PIT) on certain cancer cell lines
AUTHOR(S): Suzen, Sibel; Buyukbingol, Erdem
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Faculty of
Pharmacy (ECZACILIK), Ankara University, Ankara, 06100, Turk.
SOURCE: Farmaco (2000), 55(4), 246-248
CODEN: FRMCE8; ISSN: 0014-827X
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 5-(2-Phenyl-3'-indolal)-2-thiohydantoin (PIT) has been evaluated as an
anti-cancer compd. on several cancer lines organized in to subpanels representing leukemia, melanoma, and cancer of lung, colon, kidney, ovary,
breast, prostate and central nervous system by the National Cancer Institute (NCI) anti-cancer drug screen program. The compd. showed inhibitory activity on several cancer cell lines. No information is available on anti-cancer potency of this compd. with normal cell lines.
IT **161943-90-4**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-cancer activity studies of indolalthiohydantoin on various cancer
cell lines)
RN 161943-90-4 CAPLUS
CN 4-Imidazolidinone, 5-[(2-phenyl-1H-indol-3-yl)methylene]-2-thioxo-(9CI)
(CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

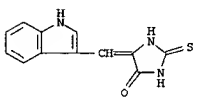
L18 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:757908 CAPLUS
DOCUMENT NUMBER: 130:119124
TITLE: Evaluation of anti-HIV activity of 5-(2-phenyl-3'-indolal)-2-thiohydantoin
AUTHOR(S): Suzen, Sibel; Buyukbingol, Erdem
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Faculty of Pharmacy (ECZACILIK), Ankara University, Ankara, 06100, Turk.
SOURCE: Farmaco (1998), 53(7), 525-527
CODEN: FRMCE8; ISSN: 0014-827X
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The anti-HIV activity of the previously synthesized 5-(2-phenyl-3'-indolal)-2-thiohydantoin was evaluated. The compd., contg. two structural
moieties found in highly active anti-HIV agents, exhibited poor activity
and rather high cytotoxicity.
IT **161943-90-4**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
effector, except adverse); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(phenylindolal-thiohydantoin anti-HIV activity)
RN 161943-90-4 CAPLUS
CN 4-Imidazolidinone, 5-[(2-phenyl-1H-indol-3-yl)methylene]-2-thioxo-(9CI)
(CA INDEX NAME)



R_3 ≠ hydrogen

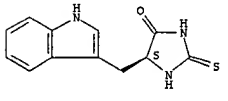
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:806382 CAPLUS
DOCUMENT NUMBER: 128:75608
TITLE: A convenient synthesis of glycosylated hydantoins as
potential antiviral agents
AUTHOR(S): Khodair, Ahmed I.
CORPORATE SOURCE: Faculty of Educatation, Chemistry Dep., Tanta University (Kafr El-Sheikh Branch), Egypt
SOURCE: Phosphorus, Sulfur Silicon Relat. Elem. (1997), 122,
9-26
CODEN: PSSLEC; ISSN: 1042-6507
PUBLISHER: Gordon & Breach Science Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Reaction of 5-arylidene-2-thiohydantions with glycosyl halides under alk.
conditions gave the resp. bisglycosylated derivs. Deacetylation with ammonia in methanol caused a change of the S-glycosyl residue and gave the
N-3 glycosylated analogs. S-Glycosylation also occurred when N-3 substituted hydantoins were reacted.
IT **10258-18-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(a convenient prepn. of glycosylated hydantoins as potential antiviral
agents)
RN 10258-18-1 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo- (9CI) (CA INDEX
NAME)

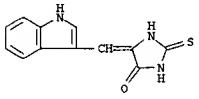


L18 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:471998 CAPLUS
DOCUMENT NUMBER: 125:248420
TITLE: Studies in thiohydantoin chemistry. II. C-Terminal sequencing of peptides
AUTHOR(S): Casagranda, Franca; Duggan, Brendan M.; Kirkpatrick,
Alan; Laslett, Robert L.; Wilshire, John F. K.
CORPORATE SOURCE: Division of Biomolecular Engineering, CSIRO, Parkville, 3052, Australia
SOURCE: Aust. J. Chem. (1996), 49(5), 551-560
CODEN: AJCHAS; ISSN: 0004-9425
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An investigation has been carried out into the thiocyanate degrdn. (AcOH/Ac2O/HSCN) procedure as it relates to the C-terminal sequencing of
peptides, particular emphasis being placed on the sequencing of amino acid
residues contg. sensitive or functional side chains. Attempted C-terminal
sequencing of several serine- and threonine-contg. peptides stopped at these particular residues, and did not proceed further. It is concluded
that sequencing of most of the common amino acids is achievable but that
significant problems will have to be overcome before routine sequencing of
proline, serine, threonine, arginine, and, in particular, aspartic and glutamic acids can be claimed. The action of base on the thiohydantoin
derivs. of N,S-diacetylcysteine and N,S-diacetyl-.beta.-methylcysteine causes .beta.-elimination of thioacetic S-acid to give the corresponding
olefinic thiohydantoins.
IT **61159-99-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(Schlack-Kumpf reaction in C-terminal sequencing of peptides)
RN 61159-99-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

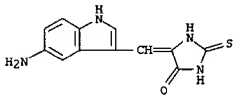


L18 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:207009 CAPLUS
DOCUMENT NUMBER: 122:204538
TITLE: Studies on the synthesis and structure-activity relationships of 5-(3'-indolal)-2-thiohydantoin derivatives as aldose reductase enzyme inhibitors
AUTHOR(S): Buyukbingol, Erdem; Suzen, Sibel; Klopman, Gilles
CORPORATE SOURCE: Faculty of Pharmacy, Dep. Pharmaceutical Chem., Ankara Univ., Ankara, 06100, Turk.
SOURCE: Farmaco (1994), 49(6), 443-7
CODEN: FRMCE8
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A new series of 5-(3'-indolal)-2-thiohydantoin derivs. was synthesized and tested for the ability to inhibit bovine lens aldose reductase (AR) enzyme. The compds. were prepd. by condensation of substituted indole-3-aldehyde derivs. with 2-thiohydantoin. The ability to inhibit the semi-purified bovine lens enzyme in vitro was obsd. for several of the compds. tested. The best inhibitor was 5-[3'-(5-fluoroindolal)]-2-(N-acetyl)thiohydantoin; its activity compared favorably with the ref. compd. sorbinil.
IT **10258-18-1P 161943-76-6P 161943-77-7P 161943-78-8P 161943-79-9P 161943-80-2P 161943-81-3P 161943-82-4P 161943-90-4P**
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and structure-activity relationships of indolalthiohydantoin derivs. as aldose reductase inhibitors)
RN 10258-18-1 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo- (9CI) (CA INDEX NAME)

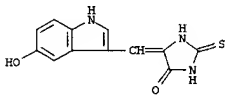


RN 161943-76-6 CAPLUS
CN 4-Imidazolidinone, 5-[(5-fluoro-1H-indol-3-yl)methylene]-2-thioxo- (9CI)
(CA INDEX NAME)

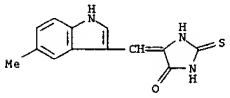
L18 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)
CN 4-Imidazolidinone, 5-[(5-amino-1H-indol-3-yl)methylene]-2-thioxo- (9CI)
(CA INDEX NAME)



RN 161943-81-3 CAPLUS
CN 4-Imidazolidinone, 5-[(5-hydroxy-1H-indol-3-yl)methylene]-2-thioxo- (9CI)
(CA INDEX NAME)

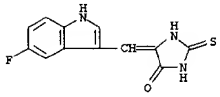


RN 161943-82-4 CAPLUS
CN 4-Imidazolidinone, 5-[(5-methyl-1H-indol-3-yl)methylene]-2-thioxo- (9CI)
(CA INDEX NAME)

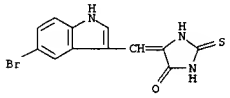


RN 161943-90-4 CAPLUS
CN 4-Imidazolidinone, 5-[(2-phenyl-1H-indol-3-yl)methylene]-2-thioxo- (9CI)
(CA INDEX NAME)

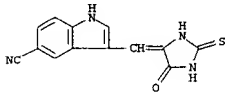
L18 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)



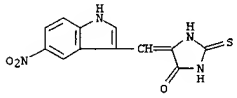
RN 161943-77-7 CAPLUS
CN 4-Imidazolidinone, 5-[(5-bromo-1H-indol-3-yl)methylene]-2-thioxo- (9CI)
(CA INDEX NAME)



RN 161943-78-8 CAPLUS
CN 1H-Indole-5-carbonitrile, 3-[(5-oxo-2-thioxo-4-imidazolidinylidene)methyl]- (9CI) (CA INDEX NAME)

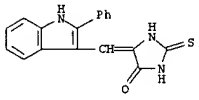


RN 161943-79-9 CAPLUS
CN 4-Imidazolidinone, 5-[(5-nitro-1H-indol-3-yl)methylene]-2-thioxo- (9CI)
(CA INDEX NAME)

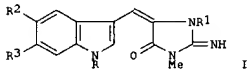


RN 161943-80-2 CAPLUS

L18 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)



L18 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:700646 CAPLUS
DOCUMENT NUMBER: 121:300646
TITLE: A new synthesis of 5-bromoaplysinopsin, 6-bromoaplysinopsin and 3'-demethylaplysinopsin and their biological activities
AUTHOR(S): Gulati, Deepa; Chauhan, P.M.S.; Pratap, Ram; Bhakuni, D.S.
CORPORATE SOURCE: Med. Chem. Div., Cent. Drug. res. Inst., Lucknow, 226 001, India
SOURCE: Indian J. Chem., Sect. B (1994), 33B(1), 10-16
CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



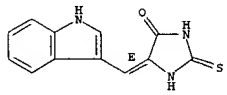
I

AB A new synthesis of 5-bromoaplysinopsin (I, R = R3 = H, R1 = Me, R2 = Br), 6-bromoaplysinopsin (I, R = R2 = H, R1 = Me, R3 = Br), and 3'-demethylaplysinopsin (I, R-R2 = H, R3 = Br) has been developed. A no. of their analogs have been synthesized and evaluated for biol. activities. Some of the compds. show fungicidal activity. I (R = R1 = R3 = H, R2 = Br) also exhibits moderate antiviral activity. I (R = H, tosyl, R1 = R3 = H, R2 = Br) and 1-tosyl-5-bromo-3-indolecarboxaldehyde show significant in vitro activity against Leishmania donovani at a dose of 100 .mu.g/mL.

IT **158991-96-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 158991-96-9 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

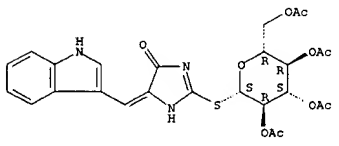
L18 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)



L18 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:45250 CAPLUS
DOCUMENT NUMBER: 120:45250
TITLE: S-Glucosylated hydantoins as new antiviral agents
AUTHOR(S): El-Barbary, Ahmed A.; Khodair, Ahmed I.; Pedersen, Erik B.; Nielsen, Claus
CORPORATE SOURCE: Dep. Chem., Odense Univ., Odense, DK-5230, Den.
SOURCE: J. Med. Chem. (1994), 37(1), 73-7
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
AB S-Glycosylation took place on reaction of 5-alkylidene- and 5-arylidene-3-aryl-2-thiohydantoins with glycosyl halides under alk. conditions. Bisglucosylation also took place with N-3 unsubstituted hydantoins were reacted. The bisglucosylated hydantoins produced N-3 glucosylated hydantoins on treatment with ammonia in methanol. In antiviral studies the most active compds. against HSV-1 and HSV-2 were 5-(2-thienylmethylene)-3-phenyl-2-(2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl)-2-thiohydantoin and 5-(2-theinylmethylene)-3-(4-chlorophenyl)-2-(2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl)-2-thiohydantoin.

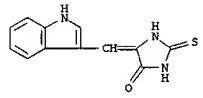
IT **151731-28-1P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and antiviral activity of, against herpes simplex virus types 1 and 2)
RN 151731-28-1 CAPLUS
CN 4H-Imidazol-4-one, 1,5-dihydro-5-(1H-indol-3-ylmethylene)-2-[(2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl)thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



IT **10258-18-1**
RL: RCT (Reactant)
(reaction of, with tetraacetyl glucopyranoside bromide)
RN 10258-18-1 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo- (9CI) (CA INDEX

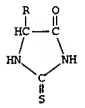
L18 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)
NAME)



L18 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:240449 CAPLUS
DOCUMENT NUMBER: 118:240449
TITLE: Skin and hair cosmetics containing thiohydantoin .alpha.-amino acid derivatives
INVENTOR(S): Yamashita, Saburo; Tsubokawa, Koichiro; Kanetaka, Setsuko; Myata, Katsuyasu
PATENT ASSIGNEE(S): Nikka Chemical Ind Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05004910	A2	19930114	JP 1991-212770	19910730

PRIORITY APPLN. INFO.: JP 1990-203681 19900731
OTHER SOURCE(S): MARPAT 118:240449
GI

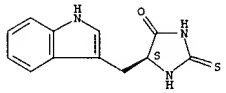


I

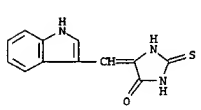
AB UV-absorbing and stable cosmetics contain thiohydantoins I (R = L-, D-, or DL-.alpha.-amino acid residue). L-Threonine was stirred with Ac2O and AcOH at 80.degree., the mixt. treated with ammonium thiocyanate at 45-50.degree. for 2 h, evapd., and treated with 6N HCl at 45-50.degree. for 3 h to give L-threonine thiohydantoin deriv. A cosmetic cream contg. 0.5 wt.% the thiohydantoin deriv. was formulated.
IT **61159-99-7P**
RL: PREP (Preparation)
(prepn. of, sunscreen cosmetics contg.)
RN 61159-99-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

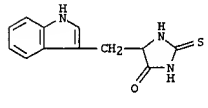
L18 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)



L18 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:34351 CAPLUS
DOCUMENT NUMBER: 118:34351
TITLE: Preparation and fungicidal activity of 5-substituted hydantoins and their 2-thio analogs
AUTHOR(S): Marton, Janos; Enisz, Janos; Hosztafi, Sandor; Timar, Tibor
CORPORATE SOURCE: Alkaloida Chem. Co., Ltd., Tiszavasvari, 4440, Hung.
SOURCE: J. Agric. Food Chem. (1993), 41(1), 148-52
CODEN: JAFCAU; ISSN: 0021-8561
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 5-(Arylmethylene)hydantoins and 5-(arylmethylene)-2-thiohydantoins were synthesized by condensation of arom. aldehydes with hydantoin or 2-thiohydantoin in the presence of ethanolamine. A no. of 5-alkyl and 5-(arylmethyl)hydantoins and their 2-thio analogs were synthesized from amino acids. All of these compds. were tested for pesticidal activity; only the fungicidal activity was significant. The arylidene C=C double bond appears to have a basic role in fungicidal activity. Introduction of OCH3 and OH groups at positions 3 and 4 of the arom. ring is advantageous.
IT **10258-10-1P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and fungicidal activity of)
RN 10258-10-1 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo- (9CI) (CA INDEX NAME)



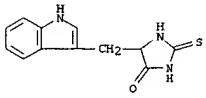
L18 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:629357 CAPLUS
DOCUMENT NUMBER: 117:229357
TITLE: Solid-phase C-terminal sequencing of peptides
AUTHOR(S): Goto, M.; Kohara, N.; Yamashita, S.
CORPORATE SOURCE: Dep. Clin. Chem., Hoshi Coll. Pharm., Tokyo, Japan
SOURCE: Amino Acids (1992), 2(3), 289-96
CODEN: AACIE6
DOCUMENT TYPE: Journal
LANGUAGE: English
AB C-terminal amino acid sequence anal. seemed to be an established procedure, as the counterpart of Edman's N-terminal sequencing method. However, poor recovery of the C-terminal amino acids in the reaction in homogeneous soln. suggested further improvement of the method. In the present study, N-terminal amino acid was fixed covalently to controlled pore glass (CPG) beads and the C-terminal amino acid was activated (by treating with acetic anhydride) and coupled with thiocyanate to form a thiohydantoin (TH) ring at the C-terminus. Then, the C-terminal amino acid was split off as the corresponding TH deriv., and analyzed by HPLC. Hydrolysis of the TH deriv. was achieved at 60.degree. in the presence of 2M HCl for 2 h. Solid-phase fixed peptide was washed simply with acetone and dried for the next cycle of the reaction. So far obtained results in the heterogeneous mixt. are not satisfactory in terms of the recovery of the C-terminal TH, and improvement of the recovery and further steps are under progress.
IT **64419-92-7**
RL: ANST (Analytical study)
(sepn., by HPLC, in peptide C-terminal sequencing)
RN 64419-92-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo- (9CI) (CA INDEX NAME)



L18 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:429875 CAPLUS
DOCUMENT NUMBER: 115:29875
TITLE: Microwave irradiation to hydrolyze modified peptide bonds
AUTHOR(S): Yamashita, Saburo; Miyashita, Masahiro; Tsubokawa, Koichiro
CORPORATE SOURCE: Dep. Clin. Chem., Hoshi Coll. Pharm., Tokyo, 142, Japan
SOURCE: Rinsho Kagaku (Nippon Rinsho Kagakkai) (1990), 19(3), 315-21
CODEN: RIKAAN; ISSN: 0370-5633
DOCUMENT TYPE: Journal
LANGUAGE: English

AB For mild and rapid anal. of the C-terminal amino acids of peptides, C-terminal peptide bond was converted to a thiohydantoin ring using (CF3CO)2O and thiocyanate and then hydrolyzed by irradiating microwave (2450 MHz) in the presence of 2N HCl for 3 min. The thiohydantoin derivs. of amino acids were sepd. and identified by HPLC. Microwave irradn. was found to be a highly specific method for the hydrolysis of the modified peptide bond.

IT **64419-92-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 64419-92-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo- (9CI) (CA INDEX NAME)



L18 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:3043 CAPLUS
DOCUMENT NUMBER: 114:3043
TITLE: Method for preparation of thiohydantoins for carboxyl-terminal protein sequence analysis
INVENTOR(S): Inglis, Adam Sinclair; Casagranda, Franca; Wilshire, John Francis Kelly
PATENT ASSIGNEE(S): Commonwealth Scientific and Industrial Research Organization, Australia
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

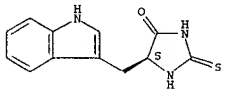
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9004183	A1	19900419	WO 1989-AU433	19891006
W: AU, JP, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8944022	A1	19900501	AU 1989-44022	19891006
PRIORITY APPLN. INFO.:			AU 1988-840	19881007
			AU 1988-939	19881012
			WO 1989-AU433	19891006

AB A method for the carboxyl-terminal degrdn. of a protein or peptide comprises: (1) coupling the carboxyl group of the carboxyl-terminal amino acid residue of the protein or peptide with thiocyanic acid or a thiocyanate to form a substituted thiohydantoin deriv., and (2) cleaving the substituted thiohydantoin deriv. with a strong inorg. base (e.g. an alkali metal hydroxide of a concn. of >0.2 M, esp. 0.5 M KOH) in the presence of a water-miscible org. solvent (e.g. MeOH) and an antioxidant (e.g. dithioerythritol or dithiothreitol) to form a shortened protein or peptide and the carboxyl-terminal amino acid thiohydantoin which can be identified for sequencing purposes. Prior to the coupling reaction, the carboxyl group is activated with e.g. Ac2O and AcOH. Shortened protein or peptide formed by the cleavage reaction is subjected to .gtoreq.1 further degrdn. cycles, with each such cycle being followed by identification of the C-terminal amino acid thiohydantoin formed by the cleavage reaction. A peptide bound on glass beads was degraded by the method. The cleavage soln. was analyzed by HPLC. It was possible to sequence through an asparty1 residue, the three successive C-terminal residues (valyl, asparty1, alanyl) of the peptide being detd. unequivocally. In addn., leucine-enkephalin has been completely sequenced and the synthetic

L18 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)
decapeptide (Tyr-Leu-Ala-Ile-Tyr-Val-Met-Ala-Phe-Val) sequenced through to the penultimate residue.

IT **61159-99-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for protein sequence detn.)
RN 61159-99-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



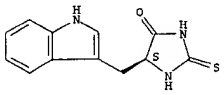
L18 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:34435 CAPLUS
DOCUMENT NUMBER: 108:34435
TITLE: Microsequence analysis of peptides and proteins: trimethylsilylisothiocyanate as a reagent for carboxy-terminal sequence analysis
AUTHOR(S): Hawke, David H.; Lahm, Hans Werner; Shively, John E.; Todd, Charles W.
CORPORATE SOURCE: Div. Immunol., Beckman Res. Inst. City of Hope, Duarte, CA, 91010, USA
SOURCE: Anal. Biochem. (1987), 166(2), 298-307
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A reinvestigation of the isothiocyanate-based chem. for cyclic degrdns. of peptides and proteins revealed that the reagent trimethylsilylisothiocyanate (TMS-ITC) gives superior results in terms of coupling efficiency and lack of complicating side reactions. Acetic anhydride (10 min at various temps.) was used to activate the carboxyl terminus, and 6N HCl (30 min at room temp.) was used for cleavage as originally described by G. R. Stark (1968). Reaction conditions for efficient coupling were explored using subtractive chem. on bradykinin, a nonapeptide, and sepn. of the reaction products by revrsed-phase HPLC. The products were analyzed by fast-atom-bombardment mass spectrometry and shown to be the N-acetylated starting material and the N-acetylated des-Arg9 deriv. of bradykinin. The pseudo-first-order rate consts. measured at 50, 70, and 90.degree. were 5.6 .times. 10-5, 5.1 .times. 10-4, and 8.6 .times. 10-4 s-1, resp. To obtain complete couplings within 30-40 min at 50.degree., the effect of pyridine catalysis was studied. The addn. of 0.225M pyridine resulted in roughly doubling the rates at 50 and 70.degree.. In the case of bradykinin, the reaction with TMS-ITC in the presence of the pyridine catalyst at 50.degree. was complete in 15 min. To apply this methodol. to the anal. of proteins, the thiohydantoin derivs. of amino acids were synthesized and sepd. by reversed-phase HPLC. The derivs. were also characterized by mass spectrometry. The above reaction conditions were tested on 3 nmol of sperm whale apomyoglobin for 3 cycles of degrdn. The sample was first coupled to p-phenylene diisothiocyanate-derivatized aminopropyl glass with a 90% yield. The approx. initial yield of glycine at cycle one was 30%. The first 3 cycles corresponded exactly to the predicted carboxy-terminal sequence of myoglobin. These results demonstrate the feasibility of a new Stark reagent for automated carboxy-terminal chem.

IT **61159-99-7**
RL: FORM (Formation, nonpreparative)
(formation of, in sequence anal. of peptides and proteins)

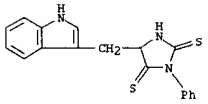
L18 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)
RN \61159-99-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

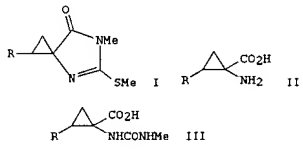


L18 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:511978 CAPLUS
DOCUMENT NUMBER: 107:111978
TITLE: Resolution of enantiomeric mixtures of phenylthiohydantoin amino acids on (+)-tartaric acid-impregnated silica gel plates
AUTHOR(S): Bhushan, R.; Ali, Imran
CORPORATE SOURCE: Dep. Chem., Univ. Roorkee, Roorkee, 247667, India
SOURCE: J. Chromatogr. (1987), 392, 460-3
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The resoln. of enantiomeric mixts. of phenylthiohydantoin (PTH) amino acids by TLC using (+)-tartaric acid-impregnated silica gel plates is reported. Thin-layer plates (20 cm .times. 20 cm .times. 0.5 mm) were prepd. by spreading a slurry of silica gel (50 g) in water (100 mL) contg. optically pure (+)-tartaric acid (0.3 g), using a Stahl type application. The plates were then heated at 60.degree. for 6-8 h. The PTH amino acids of 9 DL- and 18 pure L-amino acids were prepd. The enantiomeric mixts. 10-4M dissolved in EtOAc were applied at the 500-ng level using a 100-.mu.L Hamilton syringe. The plates were kept in an oven for 10 min at 60.degree. and brought to room temp. before developing in CHCl3-EtOAc-H2O (28:1:1) for 35 min in pre-equilibrated (15 min) glass chambers. The plates were dried at room temp. and then kept in an iodine chamber when the D- and L-forms of each PTH amino acid were visible as yellow-brown spots. The RF values of D and L components were recorded. n-BuOAc-CHCl3 (1:5) in the presence of (+)-tartaric acid and (+)-ascorbic acid resolved 6 racemic mixts., i.e., PTH derivs. of Met, Phe, Val, Th, Ala, Ser, out of the 9 used. TLC of enantiomeric mixts. of PTH amino acids on (+)-tartaric acid-impregnated plates provides a very rapid, cheap, simple, and sensitive method which involves no prior treatment or any sophisticated instrumentation. The method can be applied to racemic mixts. and both the (+)- and (-)-forms can be eluted and used subsequently.
IT **110071-66-4**
RL: PROC (Process)
(resoln. of, by TLC on tartaric acid-impregnated silica gel plates)
RN 110071-66-4 CAPLUS
CN 2,4-Imidazolidinedithione, 5-(1H-indol-3-ylmethyl)-3-phenyl- (9CI) (CA INDEX NAME)

L18 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)

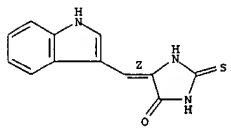


L18 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:131556 CAPLUS
DOCUMENT NUMBER: 102:131556
TITLE: E- and Z-1-amino-2-aryl(alkyl)cyclopropanecarboxylic acids from spiroimidazolones
AUTHOR(S): Arenal, I.; Bernabe, M.; Fernandez Alvarez, E.; Izquierdo, Maria L.
CORPORATE SOURCE: Inst. Quim. Org. Gen., CSIC, Madrid, Spain
SOURCE: An. Quim., Ser. C (1984), 80(2), 127-33
CODEN: AQSBD6; ISSN: 0211-1357
DOCUMENT TYPE: Journal
LANGUAGE: Spanish
GI



AB Spiro compds. I (R = Ph, anisyl, CHMe2) were converted to acids II via ureido derivs. III. I (R = Ph) was heated with NaOH and HgCl2 to yield II (R = Ph), the latter was N-nitrosated, and the product was treated with KOH to give II (R = Ph).
IT **95474-46-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and S-methylation of)
RN 95474-46-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo-, (Z)- (9CI) (CA INDEX NAME)

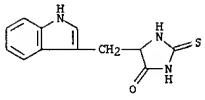
Double bond geometry as shown.



L18 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)

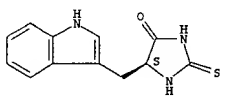
L18 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:545268 CAPLUS
DOCUMENT NUMBER: 97:145268
TITLE: Stepwise sequence determination from the carboxyl terminus of peptides
AUTHOR(S): Meuth, Joseph L.; Harris, David E.; Dwulet, Francis E.; Crowl-Powers, Mary L.; Gurd, Frank R. N.
CORPORATE SOURCE: Dep. Chem., Indiana Univ., Bloomington, IN, 47405, USA
SOURCE: Biochemistry (1982), 21(16), 3750-7
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The title degrdn. involves the reaction of the C-terminal residue with thiocyanate in acetic acid and acetic anhydride followed by cleavage of the C-terminal residue as its 2-thiohydantoin by acetohydroxamate in aq. soln. The two steps of the degrdn. were studied by using model peptides, and conditions were developed for the rapid efficient removal and identification of the C-terminal residue of short peptides. The method was applied to peptides covalently attached to insol. supports. A highly substituted porous glass activated with N,N'-carbonyldiimidazole was prepd. as the insol. support. Peptides were coupled to the porous glass, and several rounds of the degrdn. were performed on immobilized peptides. High-pressure liq. chromatog. provides a rapid, sensitive identification method for the 2-thiohydantoins. Gas-liq. chromatog. of the amino acid 2-thiohydantoins and reconversion to the parent amino acid were used to identify the cleaved residues. The method was applied to Gly-Leu-Tyr, Met-enkephalin, and Val-Leu-Ser-Glu-Gly and was used to det. the C-terminal sequence of 4 residues of a 22-residue cyanogen bromide fragment of pygmy sperm whale myoglobin.
IT **64419-92-7**
RL: ANT (Analyte); ANST (Analytical study)
(high-performance liq. chromatog. of, stepwise sequence detn. from carboxyl terminus of peptide in relation to)
RN 64419-92-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo- (9CI) (CA INDEX NAME)

L18 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)



L18 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1980:447159 CAPLUS
DOCUMENT NUMBER: 93:47159
TITLE: Identification of amino acid thiohydantoin derivatives and differentiation of .alpha.- and .gamma.-linkages in glutamyl peptides by mass spectrometry: comparison of electron impact and chemical ionization methods
AUTHOR(S): Okada, Kozo; Itagaki, Yasuhiro
CORPORATE SOURCE: Fac. Pharm. Sci., Kinki Univ., Osaka, Japan
SOURCE: Koenshu - Iyo Masu Kenkyukai (1978), 3, 249-55
CODEN: KIMKDN
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The chem. ionization (CI) mass spectra of amino acid thiohydantoins was much simpler than the corresponding electron impact (EI) mass spectra, except for some arom. amino acids. Consequently, the major component in amino acid thiohydantoin mixts. can easily be detected by CI mass spectrometry. The .alpha.- and .gamma.-isomers of a series of .alpha. and .gamma.-glutamyl peptides were distinguished by EI mass spectrometry, whereas CI mass spectrometry was not effective in distinguishing these isomers. All 4 structural isomers of glutamyllysine were easily distinguished from their EI mass spectra.
IT **61159-99-7**
RL: PRP (Properties)
(chem. ionization and electron impact mass spectrum of)
RN 61159-99-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

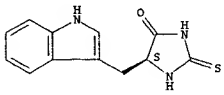


L18 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:420999 CAPLUS
DOCUMENT NUMBER: 91:20999
TITLE: Identification of amino acid thiohydantoin derivatives
by chemical ionization mass spectrometry
AUTHOR(S): Okada, Kozo; Sakuno, Akemi
CORPORATE SOURCE: Fac. Pharm. Sci., Kinki Univ., Osaka, Japan
SOURCE: Org. Mass Spectrom. (1978), 13(9), 535-9
CODEN: ORMSBG; ISSN: 0030-493X
DOCUMENT TYPE: Journal
LANGUAGE: English

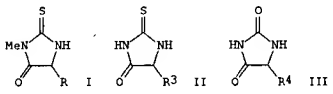
AB The chem. ionization mass spectra of 16 amino acid thiohydantoins were examd. using isobutane or NH3 as reagent gases. Except for a few cases, including some arom. amino acids, the chem. ionization spectra were much simpler than the corresponding electron impact spectra. The major component in the amino acid thiohydantoin mixt. was easily detected by chem. ionization mass spectrometry. The combination of the chem. ionization method and thiohydantoin formation was applied successfully to the sequence anal. of model peptides.

IT **61159-99-7**
RL: PRP (Properties)
(chem. ionization mass spectrum of)
RN 61159-99-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

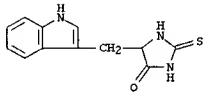


L18 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:568372 CAPLUS
DOCUMENT NUMBER: 87:168372
TITLE: Proton nuclear magnetic resonance studies on methylthiohydantoins, thiohydantoins, and hydantoins of amino acids
AUTHOR(S): Suzuki, Tateo; Tomioka, Tetsuhisa; Tuzimura, Katura
CORPORATE SOURCE: Fac. Agric., Tohoku Univ., Sendai, Japan
SOURCE: Can. J. Biochem. (1977), 55(5), 521-7
CODEN: CJBIAE
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB The proton NMR of methylthiohydantoins I [R = R1 [R1 = H, Me, CHMe2, CH2CHMe2, CHMeEt, CH2Ph, CH2C6H4OH-p, CH2CH2SMe, CH2CO2H, (CH2)3NHC(:NH)NH2, indol-3-ylmethyl, imidazol-4-ylmethyl], R2 [R2 = CH2CONH2, CH2CH2CONH2), CH2SH, CH2CH2CO2H, (CH2)4NHCSMe]], thiohydantoins II [R3 = R1, R2, CH2SCH2CO2H, (CH2)4NHAc], and hydantoins III [R4 = R1, CH2OH, CH(OH)Me, CH2SO3H, CH2CH2CO2H, (CH2)4NHAc] were given for the identification of the parent amino acid. The N- and C-terminal residues of Leu-Gly-Gly were detd. by an application of this proton NMR-hydantoin method.

IT **64419-92-7**
RL: PRP (Properties)
(NMR of)
RN 64419-92-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo- (9CI) (CA INDEX NAME)



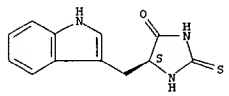
L18 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2002 ACS (Continued)

L18 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:529788 CAPLUS
DOCUMENT NUMBER: 87:129788
TITLE: Identification of 2-thiohydantoins by gas chromatography and reconversion to the free amino acids
AUTHOR(S): Dwulet, Francis E.; Gurd, Frank R. N.
CORPORATE SOURCE: Dep. Chem., Indiana Univ., Bloomington, Indiana, USA
SOURCE: Anal. Biochem. (1977), 82(2), 385-95
CODEN: ANBCA2
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The chem. of identifying 2-thiohydantoins was investigated. Min. conditions needed for silylating the 2-thiohydantoins were studied, and a new faster gas chromatog. temp. program was developed. Also, the conditions needed to reconvert the 2-thiohydantoins to the free amino acids were studied, and the severity of the hydrolysis conditions was minimized. Finally, some new 2-thiohydantoins were prepd., and their phys. properties are reported.

IT **61159-99-7P**
RL: PRP (Properties); PREP (Preparation)
(prepn. and properties of)
RN 61159-99-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



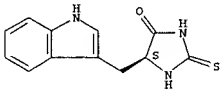
L18 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1976:577924 CAPLUS
DOCUMENT NUMBER: 85:177924
TITLE: Mass spectrometric identification of amino acid thiohydantoins
AUTHOR(S): Suzuki, Tateo; Song, Kyung-Duck; Itagaki, Yasuhiro; Tuzimura, Katura
CORPORATE SOURCE: Fac. Agric., Tohoku Univ., Sendai, Japan
SOURCE: Org. Mass Spectrom. (1976), 11(6), 557-68
CODEN: ORMSBG
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Amino acid thiohydantoins were identified by electron impact and chem. ionization mass spectrometry. The thiohydantoin method is useful for stepwise peptide sequencing from the carboxyl terminus; the sequence of a model tripeptide was detd. as an example. The method does not work for peptides contg. proline as the C-terminal unit as cleavage of the peptide bond is not achieved.

IT **61159-99-7**
RL: PRP (Properties)
(mass spectrum of)

RN 61159-99-7 CAPLUS
CN 4-Imidazolidinone, 5-(1H-indol-3-ylmethyl)-2-thioxo-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



```
=> file chemcats
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     92.84     736.59

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -13.01     -21.68

FILE 'CHEMCATS' ENTERED AT 11:55:30 ON 21 FEB 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 American Chemical Society (ACS)


FILE LAST UPDATED 16 FEBRUARY 2002 (20020216UP)

For details on recent updates in CHEMCATS, enter NEWS FILE at an arrow
(=>) prompt.  For the list of suppliers currently in the file, enter
HELP SPA, HELP SPBC, HELP SPDH, HELP SPIN, HELP SPOP, and HELP SPQZ.
For the list of current catalogs, enter HELP CTA, HELP CTBC, HELP
CTDH, HELP CTIN, HELP CTOP, and HELP CTQZ.

This database is provided on an "as is" basis.  Please consult the
suppliers for current information regarding pricing, regional
availability, available quantities, purities, etc.  THERE ARE NO
WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED.  ACS is not
liable for any loss of profit, goodwill or any other damages arising
out of the use of this database.

CHEMCATS now contains more than 3 million records.  See HELP CONTENT
and NEWS FILE for details.

=> s l14
L19         15 L14

=> d fields
'FIELDS' IS NOT A VALID FORMAT FOR FILE 'CHEMCATS'

The following are valid formats:

The default display format is IDE.

ALL ---- AN, CO, PD, ON, CN, RN, ST, Purity, Impurity, product
         identifiers, product notes, STR, product text
         (properties, regulatory information, references, prices,
         warnings, miscellaneous fields), CO, CA, CY, TX
         (products, terms, and conditions; products and services;
         packaging and shipping; safety and handling; other
         supplier information)
COMP --- AN, CO, PD, CO, TX
IDE ---- AN, CO, PD, ON, CN, RN, LSF, ST, STR
MISC --- AN, miscellaneous product information fields
PINFO -- AN, pricing information text
```

PRICE -- AN, prices, quantities
PROD --- AN, product text
PROP --- AN, properties
REF ---- AN, references
REGS --- AN, regulatory information
SAFE --- AN, product warnings
SINFO -- AN, safety text
HIT ---- All fields containing hit terms
KWIC --- All hit terms plus 20 words on either side
OCC ---- List of display fields containing hit terms

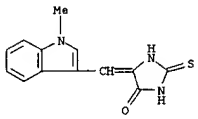
Hit terms will be highlighted in all displayable fields.

To display a particular field or fields, enter the display field codes. For a list of display field codes, enter 'HELP DFIELDS' at an arrow prompt (=>). Examples include: 'KWIC'; 'CN RN'; 'IDE CO'. You may specify the formats and fields in any order, and the information will be displayed in the same order as the format specification.

The same formats (except for HIT, KWIC, and OCC) may be used with the DISPLAY ACC command to display the record for a specified Accession Number.

ENTER DISPLAY FORMAT (IDE):all

L19 ANSWER 1 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2002:646333 CHEMCATS
Catalog Name (CO): ChemDiv, Inc. Product Library
Publication Date (PD): 26 Apr 2001
Order Number (ON): 1996-0079
Chemical Name (CN): 4-Imidazolidinone, 5-[(1-methyl-1H-indol-3-yl)methylene]-2-thioxo-
CAS Registry No. (RN): **340177-38-0**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

Quantity : milligram quantities, Price: contact supplier

COMPANY INFORMATION

ChemDiv, Inc.
11575 Sorrento Valley Road
Suite 210
San Diego, CA, 92121
USA

Phone: +1-858-794-4860
Fax: +1-858-794-4931
Email: info@chemdiv.com
Web: http://www.chemdiv.com

ChemDiv, Inc.
The Vision Centre
5 Eastern Way
Bury St Edmunds
Suffolk, IP23 7AB
United Kingdom

Phone: +44 (0)1284 749698
Fax: +44 (0)1284 749693
Email: info@chemdiv.com

Contact Service Company
P O Box 32
Strakhovoy Uchastok, Dolgoprudny
Moscow region, 141700
Russia

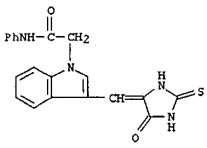
Phone: +7-(095) 408-8051
Fax: +7-(095) 576-0155
Email: contservice@contservice.ru

Summit Pharmaceuticals International Corporation (Japan)
Confort Yasuda Bldg., 2-9
Kanda Nishiki-cho
Chiyoda-ku
Tokyo, 101-0054
Japan

Phone: 81-3-3294-1613
Fax: 81-3-3294-1614
Email: newdrug@summitpharma.co.jp

```
=> d 2-15 all
```

L19 ANSWER 2 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2002:597364 CHEMCATS
Catalog Name (CO): ChemBridge Product List
Publication Date (PD): 17 Jan 2002
Order Number (ON): 6061194
Chemical Name (CN): 1H-Indole-1-acetamide, 3-[(5-oxo-2-thioxo-4-imidazolidinylidene)methyl]-N-phenyl-
CAS Registry No. (RN): **332849-28-2**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

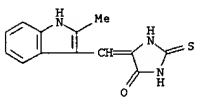
Quantity : milligram quantities, Price: contact supplier

COMPANY INFORMATION

ChemBridge Corporation
16981 Via Tazon, Suite G
San Diego, CA, 92127
USA

Phone: (800) 964-6143
(858) 451-7400
Fax: (858) 451-7401
Web: http://www.chembridge.com
Email: sales@chembridge.com

L19 ANSWER 3 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2002:158936 CHEMCATS
Catalog Name (CO): Interbioscreen Compound Library
Publication Date (PD): 1 Aug 2001
Order Number (ON): STOCK1N-05437
Chemical Name (CN): 4-Imidazolidinone, 5-[(2-methyl-1H-indol-3-yl)methylene]-2-thioxo-
CAS Registry No. (RN): **374703-78-3**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

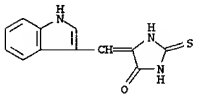
Quantity : milligram quantities, Price: contact supplier

COMPANY INFORMATION

Interbioscreen Ltd.
P O Box 218
Moscow, 121019
Russia

Phone: 7 (095) 913 23 19
Fax: 7 (095) 913 21 14
Email: screen@ibscreen.chg.ru
Web: http://www.ibscreen.com

L19 ANSWER 4 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:2826472 CHEMCATS
Catalog Name (CO): MicroChemistry Screening Collection
Publication Date (PD): 23 Aug 2001
Order Number (ON): 153751
Chemical Name (CN): 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo-
CAS Registry No. (RN): **10258-18-1**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

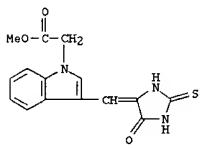
Quantity : < 100 mg, Price: contact supplier

COMPANY INFORMATION

MicroChemistry Ltd.
Leninski prospect 55/1
Moscow, 117333
Russia

Phone: +7-(095)-137-1747
Fax: +7-(095)-137-1747
Email: nick@mch.ru
Web: www.mch.ru

L19 ANSWER 5 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:2515820 CHEMCATS
Catalog Name (CO): ChemStar Product List
Publication Date (PD): 16 May 2001
Order Number (ON): CHS 1422953
Chemical Name (CN): 1H-Indole-1-acetic acid, 3-[(5-oxo-2-thioxo-4-imidazolidinylidene)methyl]-, methyl ester
CAS Registry No. (RN): **355825-17-1**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

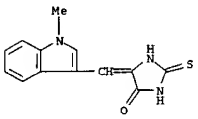
Quantity : milligram quantities, Price: contact supplier

COMPANY INFORMATION

ChemStar, Ltd.
Leningradskii prospekt 47, Office 465
Moscow, 125167
Russia

Phone: (7 095) 785 2738
Fax: (7 095) 977 5665
Email: chemstar@online.ru
Web: www.chemstar.ru

L19 ANSWER 6 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:2328897 CHEMCATS
Catalog Name (CO): Ambinter: Exploratory Library
Publication Date (PD): 31 May 2001
Order Number (ON): A1714/0073093
Chemical Name (CN): 4-Imidazolidinone, 5-[(1-methyl-1H-indol-3-yl)methylene]-2-thioxo-
CAS Registry No. (RN): **340177-38-0**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

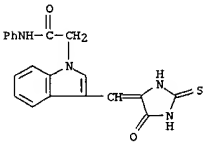
Quantity : milligram quantities, Price: contact supplier

COMPANY INFORMATION

Ambinter
46 quai Louis Bleriot
Paris, F-75016
France

Phone: (33-1) 45 24 48 60
Fax: (33-1) 45 24 62 41
Email: ambinter@compuserve.com
Web: http://ourworld.compuserve.com/homepages/ambinter

L19 ANSWER 7 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:2078455 CHEMCATS
Catalog Name (CO): AsInEx Compound Collection
Publication Date (PD): 10 May 2001
Order Number (ON): BAS 1827584
Chemical Name (CN): 1H-Indole-1-acetamide, 3-[(5-oxo-2-thioxo-4-imidazolidinylidene)methyl]-N-phenyl-
CAS Registry No. (RN): **332849-28-2**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

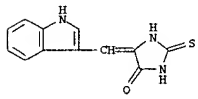
Quantity : 1-100 g, Price: contact supplier

COMPANY INFORMATION

AsInEx
6 Schukinskaya Street
Moscow, 123182
Russia

Phone: (+7 095) 190-7960
(+7 095) 728-3891
Fax: (+7 095) 190-1213
Email: asinex@asinex.com
Web: http://www.asinex.com

L19 ANSWER 8 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:2053074 CHEMCATS
Catalog Name (CO): Ambinter: Exploratory Library
Publication Date (PD): 31 May 2001
Order Number (ON): AmblieSMN-0158222
Chemical Name (CN): 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo-
CAS Registry No. (RN): **10258-18-1**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

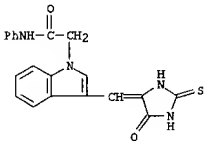
Quantity : milligram quantities, Price: contact supplier

COMPANY INFORMATION

Ambinter
46 quai Louis Bleriot
Paris, F-75016
France

Phone: (33-1) 45 24 48 60
Fax: (33-1) 45 24 62 41
Email: ambinter@compuserve.com
Web: http://ourworld.compuserve.com/homepages/ambinter

L19 ANSWER 9 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:1796364 CHEMCATS
Catalog Name (CO): TimTec Screening Library
Publication Date (PD): 19 Feb 2001
Order Number (ON): T3566528
Chemical Name (CN): 1H-Indole-1-acetamide, 3-[(5-oxo-2-thioxo-4-imidazolidinylidene)methyl]-N-phenyl-
CAS Registry No. (RN): **332849-28-2**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

Quantity : milligram quantities only, Price: contact supplier

COMPANY INFORMATION

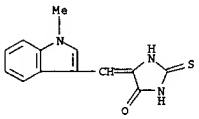
TimTec Corporation
100 Interchange Blvd.
Newark, DE, 19711
USA

Phone: (302) 292-8500
Fax: (302) 292-8520
Email: info@timtec.net
Web: http://www.timtec.net

NOTE: Compounds from the TimTec Screening Library are generally deliverable in 2 to 6 months.

50 compound minimum order size

L19 ANSWER 10 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:1771582 CHEMCATS
Catalog Name (CO): TimTec Screening Library
Publication Date (PD): 19 Feb 2001
Order Number (ON): T3528518
Chemical Name (CN): 4-Imidazolidinone, 5-[(1-methyl-1H-indol-3-yl)methylene]-2-thioxo-
CAS Registry No. (RN): **340177-38-0**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

Quantity : milligram quantities only, Price: contact supplier

COMPANY INFORMATION

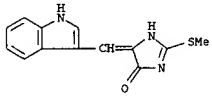
TimTec Corporation
100 Interchange Blvd.
Newark, DE, 19711
USA

Phone: (302) 292-8500
Fax: (302) 292-8520
Email: info@timtec.net
Web: http://www.timtec.net

NOTE: Compounds from the TimTec Screening Library are generally deliverable in 2 to 6 months.

50 compound minimum order size

L19 ANSWER 11 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:1611928 CHEMCATS
Catalog Name (CO): Compounds For Screening
Publication Date (PD): 1 Jul 2001
Order Number (ON): AN-068/37134010
Chemical Name (CN): 4H-Imidazol-4-one, 1,5-dihydro-5-(1H-indol-3-ylmethylene)-2-(methylthio)-
CAS Registry No. (RN): **353484-64-7**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

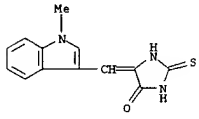
Quantity : milligram quantities, Price: contact supplier

COMPANY INFORMATION

SPECS and BioSPECS B.V.
Fleminglaan 16
CP Rijswijk, 2289
Netherlands

Phone: +31 703190019
Fax: +31 703190011
Email: specs@specs.net
Web: http://www.specs.net

L19 ANSWER 12 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:1584209 CHEMCATS
Catalog Name (CO): Screening Collection
Publication Date (PD): 28 Mar 2000
Order Number (ON): A1714/0073093
Chemical Name (CN): 4-Imidazolidinone, 5-[(1-methyl-1H-indol-3-yl)methylene]-2-thioxo-
CAS Registry No. (RN): **340177-38-0**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

Quantity : N/A, Price: contact supplier

COMPANY INFORMATION

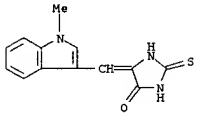
Zelinsky Institute of Organic Chemistry
47 Leninsky Prospect
Moscow, 117913
Russia

Phone: 7(095)135-4142
Fax: 7(095)135-5328
Email: info@zelinsky.com
Web: www.zelinsky.com

Zelinsky Institute
1300 First State Boulevard, Suite E
Wilmington, DE, 19804
USA

Phone: (302) 993-9165
Fax: (302) 993-0458
Email: info@zelinsky.com
Web: www.zelinsky.com

L19 ANSWER 13 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:1322537 CHEMCATS
Catalog Name (CO): Chemical Block Stock Library
Publication Date (PD): 18 Oct 2001
Order Number (ON): A1714/0073093
Chemical Name (CN): 4-Imidazolidinone, 5-[(1-methyl-1H-indol-3-yl)methylene]-2-thioxo-
CAS Registry No. (RN): **340177-38-0**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

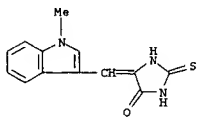
Quantity : 10-500 mg, Price: contact supplier

COMPANY INFORMATION

Chemical Block Ltd.
40-144 Leninski pr
Moscow, 117334
Russia

Phone: 7 095 135 63 43
Fax: 7 095 137 29 66
Email: cbl@chemical-block.com
Web: http://www.chemical-block.com

L19 ANSWER 14 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:1035338 CHEMCATS
Catalog Name (CO): Ambinter: Screening Collection
Publication Date (PD): 31 May 2001
Order Number (ON): A1714/0073093
Chemical Name (CN): 4-Imidazolidinone, 5-[(1-methyl-1H-indol-3-yl)methylene]-2-thioxo-
CAS Registry No. (RN): **340177-38-0**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

Quantity : 5 mg (microplate), Price: $8.00
Quantity : 20 mg in vial, Price: $35.00
Quantity : 50 mg in vial, Price: $60.00
Quantity : 100 mg in vial, Price: $70.00

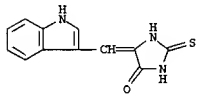
COMPANY INFORMATION

Ambinter
46 quai Louis Bleriot
Paris, F-75016
France

Phone: (33-1) 45 24 48 60
Fax: (33-1) 45 24 62 41
Email: ambinter@compuserve.com
Web: http://ourworld.compuserve.com/homepages/ambinter

Note: Only about 60% of the products in Ambinter's Screening Collection are readily available at a given time.

L19 ANSWER 15 OF 15 CHEMCATS COPYRIGHT 2002 ACS
Accession No. (AN): 2001:405273 CHEMCATS
Catalog Name (CO): TimTec Screening Library
Publication Date (PD): 19 Feb 2001
Order Number (ON): T3605511
Chemical Name (CN): 4-Imidazolidinone, 5-(1H-indol-3-ylmethylene)-2-thioxo-
CAS Registry No. (RN): **10258-18-1**
Supplementary Term (ST): CHEMICAL LIBRARY
Structure :



PRICES

Quantity : milligram quantities only, Price: contact supplier

COMPANY INFORMATION

TimTec Corporation
100 Interchange Blvd.
Newark, DE, 19711
USA

Phone: (302) 292-8500
Fax: (302) 292-8520
Email: info@timtec.net
Web: http://www.timtec.net

NOTE: Compounds from the TimTec Screening Library are generally deliverable in 2 to 6 months.

50 compound minimum order size

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	49.74	786.33

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-21.68

STN INTERNATIONAL LOGOFF AT 11:56:52 ON 21 FEB 2002